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Consumer markets abroad

IN DEPTH/CARIBBEAN P. 2 UNDISCOVERED MARKETS/CALGARY P. 10 PRODUCT COMPARISON/SEMICONDUCTORS P. 12 REGIONS P. 14 PUBLICATIONS P. 16

BUSINESS TRAVEL IN ASIA: BLOOD TESTS REQUIRED?

HEALTH AT THE BORDER
The list of countries adding AIDS tests to the visa process is growing.
(Countries requiring blood tests for long-term visitors and students, or restricting entry for people carrying the AIDS virus)

Foreign students must be tested to enter the country
Long-term* visitors must be tested to enter the country
Foreigners suspected of carrying the virus** are restricted from entry
Foreigners with AIDS are deported

* Long-term visitors are those people staying in a country for one year or longer.
** The phrase "suspected of carrying the virus" varies by country. This phrase usually applies to HIV carriers.
Note: Distances are distorted for graphic clarity.
Sources: "AIDS and the Third World," Panos Dossier 1; Mann, Jonathan, "The Global AIDS Situation," World Health Statistics Quarterly, vol. 40, no. 2, World Health Organization, 1987, pp. 186–87.

Coming next month... Learn what a unified Europe means to Berliners and to you.

Last July, an American living in China discovered he had *ai zi bing*—"love sickness." He was only the fourth person in China to come

LIFESTYLES AROUND THE WORLD

down with AIDS, and he was immediately airlifted out of the country. Six months earlier Japan erupted in public alarm when a Kobe woman, the first female victim, died from the disease. Japan's AIDS telephone hotlines received more than 140,000 calls in 48 hours. Today in more and more Asian countries, travelers must prove they are free of the AIDS virus, and health officials talk of blood tests in airports.

Is Asia overreacting?

The region has recorded the few-

(continued on p. 13)

FORMERLY INTERNATIONAL DEMOGRAPHICS
VOLUME 7 NUMBER 3 MARCH 1988

THE CARIBBEAN AFTER-SHOCK

Oil-dependence, debt, and falling export prices are three blights on the beautiful beaches of the Caribbean. But some islanders are succeeding in spite of these setbacks.

The Caribbean frustrates those who try to define it in simple terms. The ethnically diverse populations of the 20 nations that form what is often called the Caribbean Basin trace their roots to Africa, Europe, and Asia. Although each islander is part of the common Caribbean culture, he or she also has a distinct national identity. Five of the largest island nations in the region—the Bahamas, the Dominican Republic, Jamaica, Trinidad and Tobago, and Puerto Rico—show how different these identities can be.

Today, more people live along the 1,500-mile archipelago in the Caribbean Sea than live in Canada. Thirty million islanders (including those in Puerto Rico and the Virgin Islands) live on a land mass smaller than Wyoming. Excluding Cuba, only five Caribbean countries and two cities (Santo Domingo, the Dominican Republic; and San Juan, Puerto Rico) have more than 1 million people (see table below).

I N D E P T H

WHAT TO EXPECT

Stark contrasts already exist in the wealth of the various Caribbean islands. Trinidadian workers made nearly 20 times more than Haitian workers in 1982, for example. These gaps are likely to grow with population growth. By the middle of the next century, there will be twice as many islanders as there are today, according to the Centro Latinoamericano Demografía (CELADE). Growth will place new pressures on local la-

THE CARIBBEAN COUNT: POPULATION TO 2000

Some of the poorest Caribbean island nations have grown the fastest.

(Population of islands in thousands, 1987 and 2000; annual growth rate in percent 1975–85; and number of people per square kilometer in 1984)

Country	*Population 1987* (thousands)*	*Population 2000 (thousands)*	*Growth rate 1975–85*	*Density 1984 (per km²)*
Antigua and Barbuda	80	100	1.3	180
Bahamas	231	276	1.0	16
Barbados	270	307	0.8	585
Cuba	10,219	12,174	2.6	90
Dominica	80	96	0.8	98
Dominican Republic	6,716	9,282	2.4	125
Grenada	116	140	1.2	259
Guadeloupe	321	338	-0.2	186
Haiti	6,147	8,558	1.8	187
Jamaica	2,392	2,849	1.3	199
Martinique	313	338	-0.4	297
Montserrat	13**	16	NA	NA
Netherlands Antilles	271	324	1.2	215
Puerto Rico	3,561	4,212	1.4	368
Saint Lucia	131	158	1.4	218
Saint Vincent and the Grenadines	106**	133	1.0	252
Trinidad and Tobago	1,144	1,321	0.3	224
Virgin Islands (U.S.)	106**	131	NA	316

Note: Islands not listed include the British Virgin Islands, the Cayman Islands, and the Turks and the Caicos Islands. Their total population in 1982 was estimated at 38,000. Bermuda, which sometimes is grouped in the Caribbean, is also not listed. Its population in 1984 was 68,000.

** The last census for most Caribbean countries was taken in 1980. Therefore, population figures are estimates by CELADE for mid-year 1987, in thousands.*

*** Population is for 1985.*

Sources: Boletín Demográfico, *Centro Latinoamericano de Demografía, Año XX, no. 39, and Año XVII, no. 34, Santiago, Chile;* The Europa Yearbook 1987: A World Survey, *Europa Publications Ltd., London, 1987, xiv. Growth rates were calculated using CELADE data.*

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Consumer Markets Abroad, formerly ***International Demographics*** (ISSN 0731-5414), is published monthly by American Demographics, Inc., P.O. Box 68, Ithaca, New York 14851. Telephone (607) 273-6343. Copyright © 1988 by American Demographics, Inc. All rights reserved. Subscription rates are $189 a year.

bor markets and on economic resources. As a result, the less-productive islands could face declining standards of living.

Most of the growth will take place in the cities, according to CELADE, as a result both of migration and of fertility. Among the most populous Caribbean islands, Cuba and Puerto Rico will have the largest share of their populations living in metropolitan areas by 2000.

As cities dominate economic and social life, their infrastructure and service needs will grow. Public spending will most likely go toward housing, water and sewer systems, mass transit, schools, hospitals, and police and fire departments.

FIGHT OR FLIGHT

Emigration to the U.S. is an increasingly important trend, particularly in the Dominican Republic, Haiti, and Jamaica. In a number of Caribbean countries, local economies are linked with labor markets in the U.S. through complex family arrangements; many families have at least one member working on another island or in the States. The remittances they send home have become a valuable boost to family income.

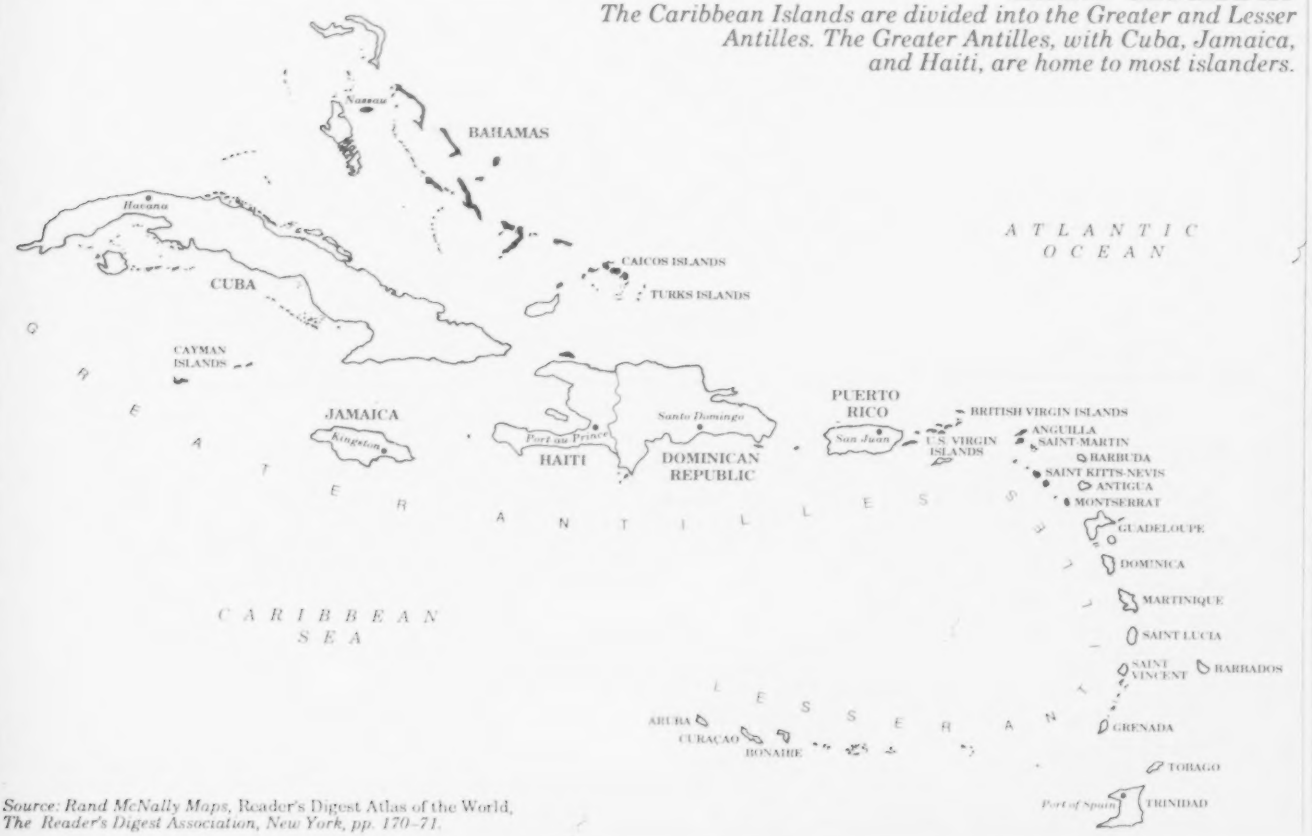
Crisis has characterized the Caribbean economies for at least a decade. Oil price hikes, escalating debt burdens, and falling export prices have hurt the region badly, especially in the late 1970s. As a result, the economic performance of Caribbean nations has been weak in the 1980s.

Double-digit inflation, rising unemployment, and sporadic growth in GNP define the era. Tourism, one of the most important industries in the islands, has been notoriously volatile.

As cities dominate economic and social life, their infrastructure and service needs will grow.

ISLAND GEOGRAPHY

The Caribbean Islands are divided into the Greater and Lesser Antilles. The Greater Antilles, with Cuba, Jamaica, and Haiti, are home to most islanders.



Source: Rand McNally Maps, Reader's Digest Atlas of the World, *The Reader's Digest Association, New York, pp. 170–71.*

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The fact that this sector is largely dependent on the U.S. economy may be cause for concern as the U.S. adjusts to its own post-stock market crash environment.

In response to all of these factors, Caribbean governments have turned to international banks and multilateral agencies to finance their deficits. Creditors now monitor the debtor countries' domestic policies closely to ensure that they will pay their debts.

THE CARIBBEAN BASIN INITIATIVE

Since 1983 the Caribbean Basin Initiative, partially modeled on Puerto Rico's "Operation Bootstrap," has been the economic cornerstone of the Reagan administration's policy in the region. It provides the Caribbean nations with duty-free export entry to the U.S. market for twelve years. Manufacturing, tourism, agriculture, and foreign investment are some of the areas that have been targeted for growth under the plan.

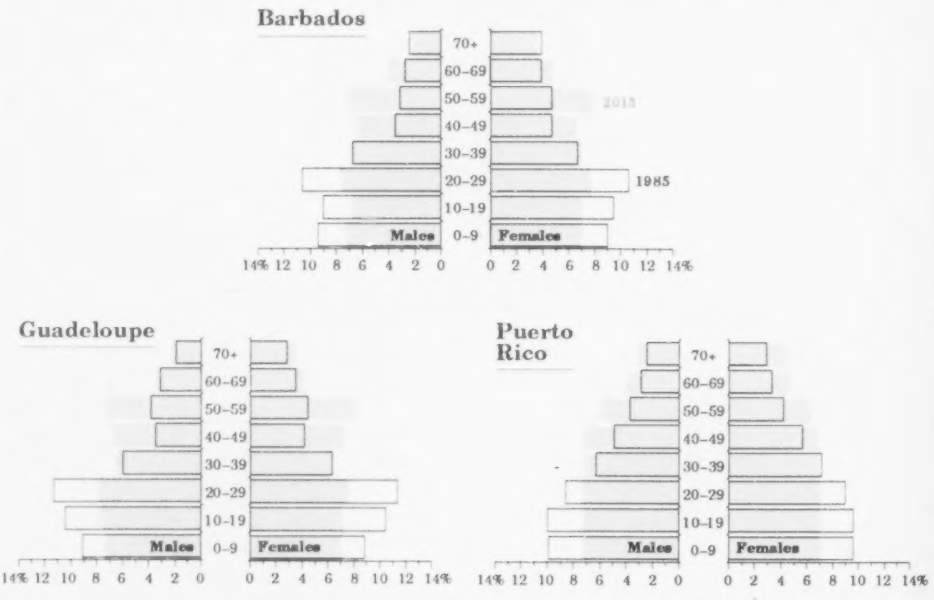
Certain conditions apply to the countries that seek duty-free access to the U.S., however. These conditions protect U.S. investments in the region, and they also protect producers in the U.S. from unfair competition. The results have been an effective subsidy to U.S. investors and little, if any, stimulus for growth in the Caribbean's locally owned businesses.

BAHAMIANS WILL HAVE MORE TO SPEND

The majority of Bahamians are descended from African slaves. Only 231,000 people live on the more than 700 islands that make up the Bahamas, whose aggregate area is the size of New England. But more than half of these islanders live in the nation's capital, Nassau.

By 2000, almost 200,000 Bahamians will live in urban areas, according to CELADE projections. The average size of a Bahamian household will decline from 4.2 to 3.4

AGE REPORT:
Young islanders dominate Caribbean populations...
(Age and sex distribution in selected Caribbean countries, in percent, 1985 and 2015)



Source: Vu, My T., World Population Projections 1985, *published for the World Bank by Johns Hopkins University Press, Baltimore, 1985, pp. 184, 202, 210, 216, 220, 262.*

persons, while the number of households will increase to 101,000.

Literacy in the Bahamas is comparatively high. Ninety-three percent of the population can read and write. Since the labor force will grow from 90,000 today to about 150,000 by 2000, the high level of literacy should help boost productivity.

Given the growing work force, there will be fewer dependents in the Bahamas in the next decade. For every 100 workers today, 84 dependendents rely on their wages. By 2000, each 100 workers will support only 53 dependents, according to Keith Edwards and Norman Graham in *The Caribbean Basin to the Year 2000.* Bahamian spending habits will change as household size falls and as the number of dependents shrinks. Officials project that average income will rise from US$3,300 in 1982 to over US$6,000 by the end of the 1990s. Edwards and Graham project that by then 65 percent of Bahamians will have incomes of over $5,000.

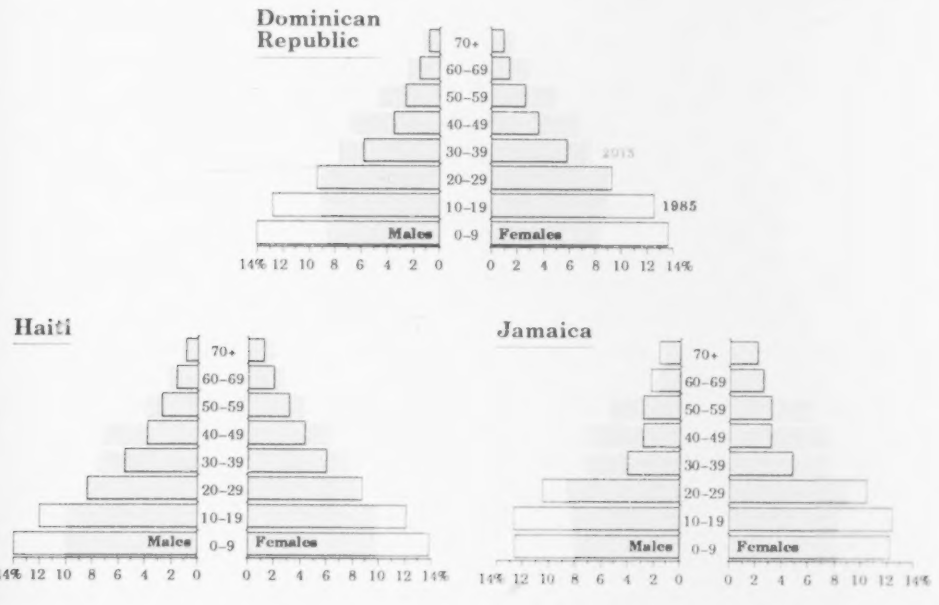
Tourism dominates the domestic GNP and employs 66 percent of the labor force. More than 1 million tourists visit the Bahamas each year. Banking services and oil refining are also important industries. Major exports include petrochemical products, pharmaceuticals, rum, and steel.

The Bahamas have become an important center for Eurodollar transactions. The fact that the Bahamas does not tax corporate income, capital gains, or individual income has produced rapid growth in the financial-services sector. More than 300 banks, plus numerous benefit and pension programs, insurance companies, and mutual funds operate in the islands.

DOWN AND OUT IN THE DOMINICAN REPUBLIC

Rapid rural-to-urban migration in the Dominican Republic over the past decade has put half of the nation's people in urban areas. Much of the country, the second largest in the

FOUNTAINS OF YOUTH
...the Dominican Republic, Haiti, and Jamaica are the youngest islands.



Source: Ibid.

URBAN ISLANDERS
Cuba, Puerto Rico, and Martinique will have the most city dwellers by 2000.
(Percentage of residents living in urban areas, 1985 and 2000)

Country	*1985*	*2000*
Antigua and Barbuda	31%	39%
Bahamas	58	65
Barbados	42	51
Cuba	72	80
Dominican Republic	56	68
Guadeloupe	46	55
Haiti	27	37
Jamaica	54	64
Martinique	71	79
Montserrat	12	16
Netherlands Antilles*	53	61
Puerto Rico	71	79
Trinidad and Tobago	64	75
Virgin Islands (U.S.)	47	64

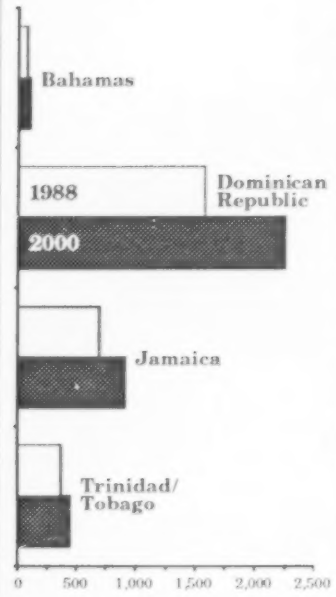
* *The Netherlands Antilles include Aruba, Curaçao, Bonaire, Saint-Martin, Saint Eustatius, and Saba.*

Source: United Nations, The Prospects of World Urbanization, *revised as of 1984–85, United Nations Publications, table A-1.*

TROPICAL HOUSEHOLDS

The Dominican Republic will gain the most households in the region.

(Number of households, 1988 and 2000, in thousands)



Source: Edwards, Keith L., and Graham, Norman A., The Caribbean Basin to the Year 2000, Westview Press, Boulder, CO, 1984.

Caribbean, is forested, and the population is concentrated either on the southeastern plain, known for plantations and cattle farms, or in the north, producer of cocoa, coffee, and other foods.

Nearly half the labor force work in agriculture, and 20 percent work in manufacturing. Recently, however, the economy has not grown enough to prevent rising unemployment. Almost one-third of the Dominican Republic's workers are unemployed, and about as many are underemployed. Setbacks in agricultural exports forced many workers to emigrate to the U.S.

Of all the Caribbean countries, only Haiti has greater poverty than the Dominican Republic. Unlike wealthier Caribbean nations, infant mortality in the Dominican Republic is high, and life expectancy—at 63 years—is relatively short. Fertility patterns match those of Central American countries more than those of island neighbors, and literacy ranks lower than the Bahamas at 77 percent.

By 2000 more than 6 million people will live in the nation's cities. The number of households will grow from about 1.3 million to 2.3 million, but their average size will decline slightly, from about 5 persons to 4 persons. The labor force will grow from just below 2 million to nearly 3 million, according to Edwards and Graham.

Workers in the Dominican Republic, who now make, on average, slightly more than US$1,000 annually, will not see large salary gains in the coming years. Only 5 percent of all workers made more than $5,000 in 1982. Ten percent of workers will make more than $5,000 by 2000.

Tourism has been the only star in the Dominican Republic's recent economic history. It is now the largest source of foreign exchange. Officials are using World Bank loans to decentralize tourist facilities, which currently are concentrated near Santo Domingo.

THE JAMAICAN MELTING POT

Jamaicans are a mix of African, European, and Asian ethnicities. Even so, three-fourths of the nation's 2 million people have African ancestors. The history of British colonial rule has left a mark on local institutions, customs, and, of course, language.

The island nation has experienced political strife since the mid-1970s. As the violence intensified, tourism suffered and a large share of the professional, educated class left the country.

Rapid population growth, high urbanization, and crowding (except in the mountainous interior region) contribute to high unemployment in Jamaica, though the labor force is relatively educated (86 percent liter-

WHO'S IN SCHOOL?

School enrollments at every age have grown in the past twenty years.

(Enrollment as a percentage of population in specified age groups, 1985 and 1965)

	Ages 6 to 11		*Ages 12 to 17*		*Ages 18 to 23*	
Country	*1985*	*1965*	*1985*	*1965*	*1985*	*1965*
Barbados	100%	99%	70%	64%	10%	5%
Cuba	100	86	86	55	33	9
Dominican Republic	86	60	70	39	25	6
Haiti	44	36	25	18	5	2
Jamaica	98	89	74	66	13	4
Trinidad and Tobago	81	76	53	57	8	6

Source: Statistical Yearbook for Latin America, *1984 edition, Economic Commission for Latin America and the Caribbean, 1985, pp. 130–33.*

ate). Traditionally strong government services—accounting for almost 20 percent of the GNP—reduce the impact of low wages and joblessness through compulsory schooling, public housing, and pension and health programs.

Jamaica's average household size of 3.6 persons is expected to decline to 3.1 by 1999, according to Edwards and Graham. But the birth rate remains high, and the country's population has been growing by 1.3 percent annually.

Income and wealth are highly concentrated in Jamaica. Nearly three-fourths of all income is earned by the top 30 percent of households. In 1982 about 5 percent of the population earned an income above US$5,000; by 2000 that figure will rise to 12 percent.

Unfortunately, like the economies of other Caribbean island nations, the Jamaican economy is vulnerable to international events. Trade and deficits are haunting the island, which is heavily in debt.

One-third of employed Jamaicans work in agriculture, but that sector only accounts for 8 percent of the gross domestic product (GDP). Sugar has become less important as an export, and cocoa and cattle have become more important.

Bauxite dominates the mining industry, which accounts for 6 percent of the GDP. Recent incentives linked to the Caribbean Basin Initiative make new investments in bauxite likely. But changing material needs may reduce future purchases of bauxite by the U.S., which is the major market for the product.

The government's current pursuit of foreign investment includes incentives that are almost identical to those offered in the Dominican Republic. Repatriation, tax holidays, import-duty exemptions, and subsidies for factory construction are the most recent attempts at revitalization. Two "free zones" in Kingston and Montego Bay provide additional subsidies for investors.

Income and wealth are highly concentrated in Jamaica. Nearly three-fourths of all income is earned by the top 30 percent of households.

ENERGIZING TRINIDAD AND TOBAGO

Of all the Caribbean islands, Trinidad and Tobago, situated just off the coast of Venezuela, are the most prosperous (excluding Puerto Rico). Forty-three percent of the dominion's 1.2 million people—who are predominantly English-speaking—are African, and 40 percent are East Indian. A large share of the adult population works, and average household size is small (3.5 persons) by Caribbean standards.

WHERE INCOME WILL GROW

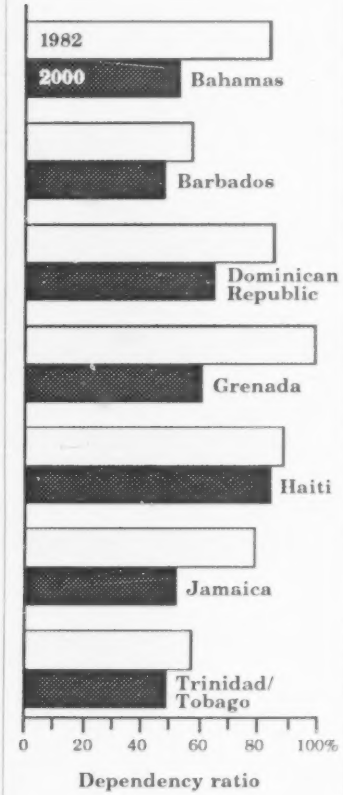
Political stability will continue to affect income growth in the region.

(Per capita income in 1980 U.S. dollars and percent who earn more than $5,000 per year, 1982 and 2000)

	Per capita income		*Percent who earn $5,000 or more*	
Country	*1982*	*2000*	*1982*	*2000*
Bahamas	$3,297	$6,102	17%	65%
Barbados	2,795	5,698	13	47
Dominican Republic	1,016	1,774	5	10
Grenada	676	1,087	4	5
Haiti	233	370	2	3
Jamaica	986	1,933	5	12
Trinidad and Tobago	4,434	10,618	26	72

Source: Edwards, Keith L., and Graham, Norman A., The Caribbean Basin to the Year 2000, Westview Press, Boulder, CO, 1984, pp. 5–6.

TOWARD INDEPENDENCE
On most islands, workers will support fewer dependents by 2000.
(Dependency ratios in the Caribbean, 1982 and 2000)*



* *The dependency ratio is the number of persons aged 0 to 14 and 65 and over per 100 persons aged 15 to 64.*

Source: Edwards, Keith L., and Graham, Norman A., The Caribbean Basin to the Year 2000, Westview Press, Boulder, CO, 1984, p. 4.

Trinidad's small urban population is highly concentrated in the northwestern part of the island, around Port-of-Spain (population 350,000). Nine out of ten people can read and write, and life expectancy is on the increase. In the next decade, household size should decline slightly.

Oil reserves have spared Trinidad and Tobago from the economic crises that have plagued the dominion's Caribbean neighbors. As a result of rapid economic growth in the late 1970s, people in the dominion have the highest per capita income in the region. Economic growth has shifted workers from agriculture into the construction, mining, and commerce sectors, which now employ 66 percent of the work force. Twenty percent of Trinidad and Tobago's workers, however, still can't find jobs.

Petroleum and gas are the core of the economy. They account for 88 percent of exports and 50 percent of the GDP. Petroleum price increases in the 1970s offset the decline in agricultural production, which now accounts for only 2.5 percent of the GDP. By 1983, the country imported more than US$400 million in food. Tourism remains strong; almost a quarter of a million tourists visit the dominion each year.

Foreign investment is officially encouraged by the government of Trinidad and Tobago, but some industries are protected, such as public utilities, the media, banks, furniture manufacturers, and boat builders. Repatriation of profits and capital is controlled by the Central Bank and varies by economic activity.

HOW PUERTO RICO FITS IN

Officially a "self-governing commonwealth" in union with the U.S., Puerto Rico plays an important role in the Caribbean region. The island serves as a vital link between North and South America, and as a bridge between cultural differences.

More than 3 million people live on Puerto Rico, the smallest of the Greater Antilles, making it one of the most densely populated islands in the Caribbean. Nearly three-quarters of all Puerto Ricans are urbanites—more than 1 million people live in the extended metropolitan area of San Juan alone.

Puerto Ricans are descendants of Spaniards, Africans, aboriginal Indians, Europeans, and North Americans. Many enjoy relatively high incomes, although their incomes are lower, on average, than those in the continental U.S. Since one-third of the country's budget now goes to education, 90 percent of the people are literate.

ISLAND LABOR
A large, literate labor force will be the key to growth for many islands.
(Labor-force size of selected countries, 1982 and 2000)

Country	*1982*	*2000*
Bahamas	89,700	147,800
Barbados	100,200	124,100
Dominican Republic	1,713,300	2,920,600
Grenada	29,833	54,480
Haiti	2,427,000	3,925,400
Jamaica	788,400	1,202,800
Trinidad and Tobago	475,000	626,300

Source: Edwards, Keith L., and Graham, Norman A., The Caribbean Basin to the Year 2000, Westview Press, Boulder, CO, 1984, p. 4.

Puerto Ricans live longer than their Caribbean neighbors. An average Puerto Rican could expect to live 73 years in the mid-1980s. The Puerto Rican population is growing twice as fast as the population of the continental U.S.

Puerto Rico's 912,000-person labor force includes many skilled and semiskilled workers. Nearly 25 percent work in public administration, and 20 percent work in manufacturing, wholesaling and retailing, and service industries. A small fraction of Puerto Ricans work in agriculture, construction, and finance.

During the postwar era a steady stream of Puerto Ricans migrated north, because they could not find jobs on the island. Today, about 1.5 million Puerto Ricans live in the continental U.S., but unemployment in Puerto Rico remains high (23 percent).

Puerto Rico has become the primary trade center in the region. San Juan, the capital, is one of the world's ten busiest container ports. Puerto Rico has the Caribbean's busiest airport, serving millions of passengers annually and offering direct flights to 20 U.S. cities.

More than 1,000 U.S. companies operate in Puerto Rico free of United States taxes. Recent industrial development strategies emphasize twin-plant production, in which primary factories in Puerto Rico are complemented by raw-material production and assembly plants in other Caribbean islands. This strategy allows companies to take advantage of the skilled labor force in Puerto Rico and lower labor costs elsewhere in the Caribbean region.

The Puerto Rican population is growing twice as fast as the population of the continental U.S.

THE SMALLER ISLANDS

The Leeward and Windward islands form the Lesser Antilles group, which are off the coast of Venezuela. Many of these islands are still British, French, or Dutch colonies. They include Guadeloupe, Martinique, and the Netherlands Antilles.

These small islands are sparsely populated. Their relative isolation, low rainfall, and poor soil have inhibited their economic development. Many have remained dependent on colonial states and international aid. Falling export prices for goods such as sugar, bananas, coffee, and minerals aggravate their vulnerability.

Nevertheless, the ongoing expansion of fishing, off-shore banking, other financial services, and tourism is providing new resources on many islands.

—William L. Canak, PhD.
Danilo Levy
Department of Sociology
Tulane University

PARADISE PAYS OFF

Tourism is still the mainstay of many Caribbean economies.
(Selected tourist statistics for Caribbean island nations, 1983–85)

Country	*Tourist arrivals (1985)*	*Growth in tourist arrivals (1984–85)*	*Average length of stay* (days)*	*Number of rooms (1983)*
Antigua and Barbuda	139,570	8.1%	7	1,610
Bahamas	1,368,320	7.0	7	13,025
Barbados	359,135	-2.3	6	7,157
Dominica	20,433	-8.2	3	343
Dominican Republic	443,324	8.6	3	4,305
Jamaica	571,713	-5.3	10	11,015
Saint Lucia	96,649	8.7	9	3,421

* *Latest available year during the period 1982 to 1985.*
Source: Statistical Bulletin of the O.A.S., *vol. 8, no. 3–4, General Secretariat of the Organization of American States, Washington, DC, July–December 1986, pp. 88–97.*

DISCOVER CALGARY, ALBERTA

Think again before you pack up your Olympic souvenirs. There are business opportunities in Calgary.

Those who traveled to Calgary for the Winter Olympics in February may want to take a second look at the city with more than just a tourist's eye. This migrants' town has gone from the Wild West of Canada to a young, booming center for energy and scientific exploration. While the economy has not grown smoothly, it is now recovering from the brutal oil slump of the early 1980s.

From 1971 to 1986 Calgary gained 270,000 people. Eastern Canadians migrated to Alberta's second largest city looking for work in the prosperous oil and natural gas industries. In those fifteen years the metropolitan area climbed from Canada's ninth largest (403,000 people) to its sixth largest (670,000 people). This 66 percent growth far outpaced the nation's 17 percent gain.

In some ways, Calgary's economic position can be compared to Houston's. Oil lured people to both cities, and when the industry slumped, so did the metropolitan economies. Fortune-hunters who flocked to Calgary in the late 1970s packed their bags in the early 1980s. From 1979 to 1981, a net of 20,000 people a year moved to Calgary; from 1982 to 1984 a net of 23,000 people left each year.

Things are beginning to change again. Five thousand more people moved into Calgary in 1985 than moved out. Perhaps even more successfully than Houston, Calgary is trying to diversify and recover from the world energy rollercoaster.

The city's population is an asset in

that effort. People in Calgary are younger, wealthier, and better educated than most Canadians. Sixty-one percent of Calgary's population are under age 35 compared to 56 percent for Canada as a whole, according to the 1986 census. Sixty-four percent are in their prime working years (ages 15 to 54), while 59 percent of all Canadians are in that same age category. Calgary's share of the elderly population is relatively small: Only 7 percent are aged 65 or older, while the elderly are 11 percent of Canada's population as a whole.

Because Calgary's population is young, people are somewhat more likely to live alone there than in Canada as a whole. One-person households accounted for 23 percent of Calgary households in 1986, com-

FAMILY LIFE

Thirteen percent of Calgary families are lone-parent families.

(Selected characteristics of Calgary census families, 1986)*

Total number of families in private households	**167,770**
By size of family	
2 persons	69,490
3 persons	39,400
4 persons	40,525
5 or more persons	18,360
By family structure	
Husband-wife families	146,240
with no children at home	57,275
with children at home	88,970
1 child at home	32,525
2 children at home	38,630
3 or more children at home	17,815
Lone-parent families	21,535
male parent	3,455
1 child at home	2,155
2 children at home	980
3 or more children at home	315
female parent	18,080
1 child at home	10,060
2 children at home	5,895
3 or more children at home	2,125

** "Census family" refers to a husband and wife (with or without children who have never married, regardless of age), or a lone parent of any marital status (with one or more children who have never married, regardless of age), living in the same dwelling. For census purposes, persons in a common-law union are considered married.*
Source: Statistics Canada, Profiles, Alberta: Part 1, *p. 51.*

pared with 22 percent of all Canadian households.

Calgary is teeming with skilled laborers. While 22 percent of Canada's adults did not go on to the ninth grade, according to the 1981 census, only 9 percent of Calgary adults quit school before ninth grade. And 14 percent of Calgary's population aged 15 or older who were not attending school on a full-time basis had already received a university degree. Only 8 percent of all Canadians had done so.

Because energy is Calgary's primary industry, the city is filled with engineers, scientists, and administrators. Scientific workers made up 8 percent of Calgary's labor force in 1981, but only 3 percent of Canada's. Similarly, 12 percent of Calgary workers were managers or administrators—3 percentage points more than nationally.

The income gaps between the western and eastern provinces created by oil still linger in Canada. At US$12,989, Calgary's median income was 16 percent higher than Canada's as a whole in 1985. But in the last oil-rich days of 1982, Calgary's median income was as much as 24 percent higher than the Canadian average, according to Statistics Canada.

Calgary's spending patterns match those of other Canadian cities. Eighteen percent of total household expenditure goes to shelter, and 11 percent goes to transportation. Calgarians devote fewer Canadian dollars to food, however. They spend 13 percent of their budgets on it, while other urbanites spend about 15 percent of their money on food.

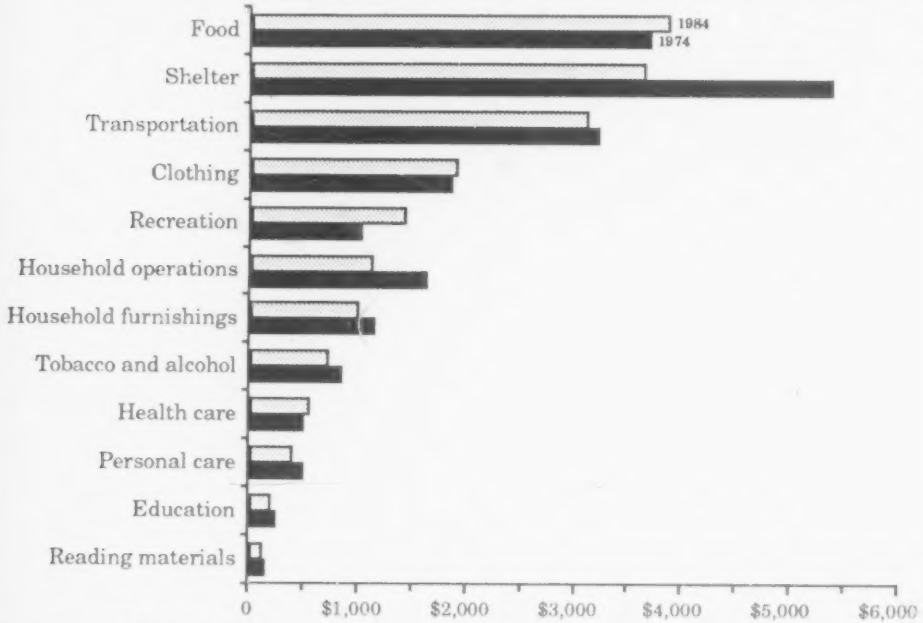
With the infusion of Olympic capital, Calgary may get the boost it needs to overcome the oil-glut stigma. And the new U.S.-Canada trade agreement, which will lift existing trade barriers between the two countries and open markets north and south of the border, is one vehicle to keep the momentum going.

—Blayne Cutler

People in Calgary are younger, wealthier, and better educated than most Canadians.

CALGARY BUDGETS

Calgary households spent one-third more on shelter in 1984 than they did in 1974. (Household expenditure by commodity, in 1984 U.S. dollars, 1984 and 1974)



Note: Average household size in 1984 was 2.53; in 1974 it was 3.05.
Source: Statistics Canada; Government Finance Statistics Yearbook, *vol. XI, International Monetary Fund, 1984.*

SEMI-CONDUCTORS: FROM POTATO CHIPS TO INDUSTRIAL RICE

P R O D U C T C O M P A R I S O N

In the old days, "chip" was a word that followed potato. But now that consumers gobble up computers almost as addictively as they eat junk food, the word "chip" has become a symbol of technological superiority. But few people realize how many chips (or semiconductors) they actually own, or why they buy them.

These tiny integrated circuits are a part of a host of electronic, information, and military products. Consumers "choose" chips in part by buying one computer or VCR over another. For example, some powerful minicomputers have very "fast" microprocessor chips but not many "memory" chips, while other computers have both fast microprocessors and many memory chips.

In both cases the United States and Japan nearly corner the market. Since 1982 these countries have consumed three-quarters of the world's chips. But consumption patterns have changed dramatically. In 1982 Japan bought 26 percent of all "industrial rice" (a Japanese term for chips), and the U.S. bought 49 percent. Last year Japan bought 75 percent of the world's chips, and the U.S. bought 12 percent. Western Europe bought most of the rest.

To understand how much the Japanese outspend Americans on these silicon nuggets, one need only calculate the "chip-per-person" index. With total annual chip consumption at US$5.5 billion and a population of 122 million, each Japanese theoretically spends $45.08 a year on chips. Using the same index, Americans spend $3.37, and Europeans spend $.53.

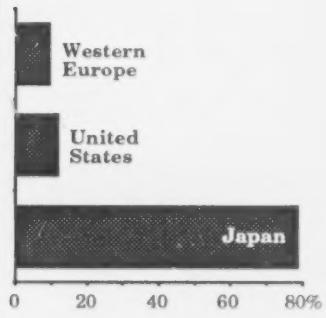
The Japanese have concentrated on making memory chips, while the U.S. has focused on more advanced microprocessors. Memory chips make up a large share of consumption now. But in the world of hyper-innovation, these chips have already become "basic" technology. Future growth will hinge on the more advanced chips which are cultivated (at a high cost) in the U.S.

The race to upgrade chips is hardly pricing consumers out of the market. In fact, the price structure looks more like a "Going Out of Business Sale" than a high-tech special offer. Chip production has become so efficient that prices drop even as memory grows. A 1K* RAM memory chip cost 1 cent per bit in 1971. By 1986 a 256K RAM memory chip cost 0.001 cents per bit, according to the Bureau of Industrial Economics.

The new arena for chip-buyers in the next five years, however, may bring higher costs. New technology focuses on the custom-made chip, the Application Specific Integrated Circuit (ASIC). Unlike generic off-the-shelf chips, ASICs now are used

** 1K (kilobyte) equals 1,024 bytes or 8,192 bits.*

SEMICONDUCTOR CONSUMPTION
In five years, Japan has become the largest chip consumer.
(Percent of total semiconductor purchases, estimated for 1987)



Source: Dataquest, in The Economist, *12/12/87, p. 76.*

WHY BUY CHIPS?
Japanese buy chips for home electronics; Americans buy them for computers.
(Consumption of integrated circuits, in percent, 1982)

	Computers	*Communications*	*Office automation /other industrial*	*Consumer products*	*Government and military*
United States	78%	70%	41%	31%	92%
Japan	9	12	34	50	0
Western Europe	13	18	25	19	8
Total	100	100	100	100	100

Source: Electronics Industries' Association of Japan for the U.S. and Japanese data; Dataquest for Western European data, in The OECD Observer, *no. 132, January 1988, p. 15.*

predominantly in research and engineering, but soon will be used very frequently for consumer products like personal computers, VCRs, and cars. European consumption of ASICs is projected to grow by 25 percent in the next five years.

Semiconductor technology has defense and political implications that affect people outside the industry itself. Governments pump public funds into chipmaking and tout it as an "investment for our children." But for average consumers, the chips that change our lives are just an invisible part of the package.

—Linda Newcomb
Blayne Cutler

In the race for semiconductor supremacy, Japan is ahead. But the U.S. may ultimately win.

***(AIDS in Asia,** continued from page 1)*

est cases of AIDS in the world since the virus was identified in 1981. In late 1987, 127 countries had reported a total of 64,488 AIDS cases to the World Health Organization (W.H.O.). The U.S. reported nearly 44,000 cases; 18 Asian countries reported a collective total of only 208 cases.

A "Pacific epidemic" of AIDS has not occurred so far, but the number of people showing symptoms of the disease continues to increase dramatically. Foreigners face growing hostility as carriers of disease—a sentiment that has greatly affected the freedom of travel.

Business people and government officials who travel to Asia have found visa restrictions, blood-test requirements, and other legislative barriers to entry. Those visitors who plan to stay in China, India, the Philippines, or South Korea for more than one year (long-term visitors) must prove that they are AIDS-free.

Restrictions are not limited to business travelers. All foreign students entering China and India must carry documents showing that they test negative for the AIDS virus. This policy is particularly controversial in India, where 80,000 foreigners study, half of whom come from the highly infected nations of Central Africa.

The upcoming Olympics pose a special health problem for South Korea. The government does not require testing of short-term visitors, but AIDS policies are under review as the games approach. Domestically, a program to test women working in nightclubs that are popular with foreigners has been expanded; the number of women tested has increased from 12,000 to 100,000.

Will screening travelers prevent a "Pacific epidemic" of AIDS? At the "Consultation on International Travel and HIV Infection" last March in Geneva, W.H.O. analyzed this question. "The direct and indirect costs of an HIV screening programme for international travellers can be considerable....If these costs are borne by the traveller, they will be unaffordable to many land travellers. If these costs are met by the recipient government, they may place an unacceptable burden on public finances," according to the conference report.

The estimated direct cost per traveler for AIDS testing would be US$10 to US$20. The conference attendees also identified two likely problems that could allow AIDS to enter countries that test foreigners: black marketeering of false health certificates, and failing to test foreign nationals who have been abroad.

But a larger problem centers on trade itself. "It could be reasonably anticipated," the report states, "that a restrictive policy for international travellers based on HIV screening would result in a decline in tourism and international commerce."

Business people intending to go to Asia for extended periods of time should check with embassies and consulates before their departure to find out what AIDS-related clearances they need.

—Stephen Karel
Health Officer
East-West Center

REGIONS: CONSUMER TRENDS AROUND THE WORLD

Where should you look for Latin America's elderly? In Uruguay and Argentina, according to Centro Latinoamericano Demografía's *Latina En El De Los.*

Sixteen percent of people in Uruguay and 13 percent of people in Argentina are more than 60 years old, according to CELADE. But only 6

percent of people in El Salvador and Haiti, the two most crowded countries in the region, are that old. Venezuela has the smallest share of people over age 60, at 3.5 percent.

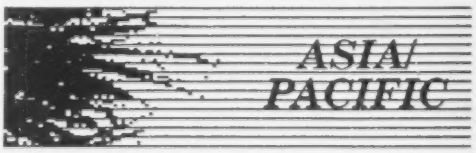
For more information on aging in Latin America contact Centro Latinoamericano de Demografía (CELADE) at Edificio Naciones Unidas, Avenida Dag Hammarskjold, Casilla 91, Santiago, Chile.

Jamaica wants to boost employment in electronics, according to the Institute for Resource Development. There is a "window of opportunity" for U.S. electronics manufacturers to base operations on this tropical hotspot, according to an IRD study funded by USAID. The Jamaican Industrial Development Corporation hopes to create jobs and to earn foreign exchange through outside investment. For further information contact Institute for Resource Development/Westinghouse, P.O. Box 866, Columbia, MD 21044.

Couch Potato Competition: Chinese may be more hooked on television than Americans. Seven out of ten Chinese glue themselves to the tube for 1.8 hours daily, according to the Third World Advertising Congress held in Beijing last June.

Those who think the television habit does not jibe with Chinese incomes may want to think again. As of early 1987 there were 65 million television sets in the country. Peak audiences can reach 250 million people—more than the total population of the U.S., according to The China National Advertising Association. Urban areas show particularly high rates of television ownership: 92 percent of Guangzhou households own a television, for example, and 32 percent of Beijing households watch their favorite programs in color.

A 30-second commercial on CCTV 2, a national government station that reaches nearly 300 million viewers, cost US$4,000 in 1987, according to



the August 1987 China Trade Report. So much for those half-million dollar Super Bowl Spots.

Indonesians stay put: Fewer families leave urban markets. This year the government will scale back its US$7 billion resettlement program—one of the largest efforts to move people in modern history.

Cups of tea the average British person drinks in one year:

1958:	2,000
1987:	1,200

Cups of coffee the average American drinks in one year:

1965:	1,210
1985:	842

Sources: The New York Times; *The Beverage Consumer, 1987.*

The massive attempt to correct overcrowding in Indonesian cities was criticized from the start. Of the 80,000 families that the government removed from large urban markets on the densely populated islands of Java, Bali, Maduri, and Lombak in 1986, nearly 20 percent came back to the cities, reports the International Planned Parenthood Foundation. This year the government will move only about 10,000 families.

IPPF estimates the cost to resettle just one family at US$10,000. The government will concentrate on more conventional means of lowering density, such as family planning.

Kinship revived: Longer life in France means stronger family and community relationships, according to the report *Some Major Trends in French Society* by Louis Dirn and Henri Mendras of the Fondation Nationale des Sciences Politiques.

Dirn and Mendras speculate that since 20 percent of the French population is aged 60 to 80, grandparents play a larger role in shaping society. "If life expectancy is 80...more and more children are brought up by their grandparents part of the week if they live nearby."

To find out more about family life in France write Observatoire Français des Conjonctures Economiques, Fondation Nationale des Sciences Politiques, 69 Quai d'Orsay, 75007, Paris.

Neither a Beckett nor a Shepard be: Europeans still prefer William the Quotable. During the 1986–87 season, Shakespeare was performed more than any other playwright in Germany, Austria, and Switzerland, according to the German Stage Association. Fifteen million people saw the works of more than 500 playwrights that year; 1,800 performances featured the words of the old master. Plays by Italian Dario Fo and German Bertold Brecht ranked second and third in total number of performances. But Brecht's *Threepenny Opera* was the "single most popular play," attracting 173,000 theatergoers.

CONFERENCES

March 15–17, 1988: ***Understanding the New Harmonized System.*** *Sponsored by the International Trade Institute. Two one-day seminars on Export Documentation and Export Letters of Credit. Two half-day briefings on the Harmonized System (for importers and exporters). Palos Verdes Inn, 1700 S. Pacific Coast Highway, Torrance, CA. Other locations scheduled include Sunnyvale, CA (March 15–17), Trumbull CT, (March 22–24), Anaheim, CA (March 22–24), Charlotte, NC, (March 29–31), and San Francisco, CA (March 29–31). For further information, call 800-543-2453.*

CITY STATS

DENTURE MARKETERS TAKE NOTE

At least one in five elderly adults reports chewing difficulties in four European cities.

(Percentage of elderly men and women who have had difficulties in chewing, in four European cities, 1979, by selected age groups)

Study area	*60–64*	*65–69*	*70–74*	*75–79*	*80–84*	*85–89*
Belgrade, Czechoslovakia						
Men	19%	27%	26%	28%	29%	33%
Women	22	15	25	38	33	33
Florence, Italy						
Men	19	21	33	19	28	34
Women	35	33	33	43	42	37
Kiev, U.S.S.R.						
Men	22	23	27	31	32	32
Women	27	29	43	52	49	56
Tampere, Finland						
Men	23	24	16	21	26	31
Women	11	15	20	22	23	47

Source: Heikkinen, E., et al, The Elderly in Eleven Countries—A Sociomedical Survey, *Copenhagen, World Health Organization, Regional Office for Europe, 1983.*

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Aging in the Western Pacific: A Four Country Study, Western Pacific Reports and Studies Number 1, World Health Organization, Regional Office for the Western Pacific, Manila, 1986, US$10.00.

By 2000, the number of people aged 65 and over living in developing countries will increase by 100 million. The number of people aged 65 and over living in industrialized countries will increase by 35 million. In cooperation with the governments of Fiji, Malaysia, the Philippines, and the Republic of Korea, the World Health Organization documents this elderly boom in **Aging in the Western Pacific.**

The demographics of an aging population could overwhelm these four countries. Mental health indicators suggest that these countries are already having some transitional difficulties. Twenty-two percent of elderly Koreans, for example, report that they are lonely, compared with 9 percent of elderly Americans and 1 percent of elderly Danes.

No government can control the laws of time, but by timing its laws favorably, it can help to ease the burdens of social upheaval. **Aging in the Western Pacific** is a tool for understanding countries struggling with demographic change.

British Social Attitudes: The 1987 Report, Gower Publishing Co., Old Post Road, Brookfield, VT 05036, US$65.95.

What do the British think about Americans? Thatcherism? Divorce? Potatoes?

British Social Attitudes: The 1987 Report provides answers to just about every question you might want to ask a Brit.

Some might be surprised to find out, for example, what young British women really think about health food. Fifty-one percent of women aged 18 to 34 say that "food that is good for you is usually more expensive." Only 45 percent of men in the same age group agreed.

Do British parents raise their kids differently? Eighty-six percent say honesty is the most important quality that British parents can teach children. Only 6 percent rate leadership as one of the top five qualities.

—Franklyn Crawford

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